# SATELLITE OBSERVATIONS CONDUCTED BY THE STADE TRACKING STATION

#### H. Köhnke

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Coordinates: 53° 35' 20" North 09° 27' 36" East

Altitude above normal zero: sea level: 7.5 m

Cospar-Station No.: 2567

Date Rev. No.	Object Catalog No.	Code Name	Time GMT	Mag.	Light change Tumbling
12/19/64	1964-53 A	Kosmos 44	From 16.09-16.10,	+5	Flashing!
<b>1.63</b> 5	876		from SW-NE		Tumbling
		,	in NW 50 <sup>C</sup> altitude		4.65 sec ?
12/19/64	1960 Eps.	Capsule of	From 16.17-16.19,	Zenith +2	Steady
26.141	036 3	Sputnik 4	from SW-NE	in NE +1	
	!	· •	in NW 80° altitude		
12/19/64	1964-30 A	64-30 A	Briefly, between	+2	Steady
2.976	811	Starflash 1	16.50 and 16.51,		varying
1			from N-W, in		
		!	NW 30-35°		
12/19/64	1963-22 A	1963-22 A	From 17.00-17.01,	+7	Steady
7.977	594	Mushroom	from S-N, in		
		Transit ?	w 88-90°		

First observation of this object!

<sup>\*</sup>Numbers given in the margin indicate the pagination in the original foreign text.

Date Rev. No.	Object Catalog No.	Code Name	Time GMT	Mag.	Light change Tumbling
12/19/64	1964-76 A	Explorer 24	From 17.28-17.30,	+3	Steady
÷ [	931		from S-N, in East		
1 1 1 1 1 1	;		35-40° high. At		
			17.30 beginning of	+4	
			nuclear shadow of		, !
	1		Earth		

New Satellites Observed by me:

1) 1963-22 A: This satellite had an apparent brightness of +7 at a vertical altitude of about 745 km and horizontal altitude of about 88-90° W. No light changes were observed during transit. Observed with llx field glasses.

Remarks About Satellite 1964-76 A - Explorer 24

Brightness of Explorer 24 at an altitude of about 1,000 km at my observation apparent brightness of +3 - +4 magnitude. Despite full moonlight, satellite could sometimes be observed quite we'll with the naked eye. This observation clearly shows that Explorer 24 is considerably brighter than Explorer 19. My earlier observations of Explorer 19, which are also available at your Institute, have clearly indicated that the Explorer 19 satellite, at an altitude of about 1,000 km, cannot be seen with the naked eye. Further observations will follow.

Object 1960. Epsilon 3: Sputnik 4 capsule was very bright during its transit 26.141 on 12/19/64.

With friendly greetings
Very truly yours,
(signed) (Horst Köhnke)
Satellitenstation Stade
216 Stade/Elbe
Thuner Str. 98a
Western Germany

Date Rev. No.	Object Catalog No.	Code Name	Time GMT	Mag.	Light change Tumbling
12/8/64	1964-4 А	Echo 2	From 06.25-06.30,	0 - 1	Steady
4.276	740	,	from S-N,		
			in West 25-30 <sup>0</sup>		
12/8/64	1963-30 A	Midas 7	From 20.09-20.11,	+7 -	Steady,
4.366	622	;	from S-N,	+7.5	varying,
		 	in East 85-900	1	occasional-
	Proximity to	Polaris at	20.11 hours GMT		ly flashing

## Dear Mr. Goett:

To you and all at the Goddard Space Flight Center a joyous Christmas and a healthy, peaceful and successful 1965.

I hope for continued good cooperation in cosmic space investigation with the USA.

With friendly greetings heartily as ever,

Your obedient

(signed) (Horst Köhnke)

Satellitenstation Stade 216 Stade/Elbe Thuner Str. 98a Western Germany